

We Claim:

1. An apparatus for reducing the aerodynamic drag of a bluff-bodied vehicle in a flowstream, the bluff-bodied vehicle of a type having a leading portion and a trailing portion connected to the leading portion with a gap therebetween defining a recirculation zone, comprising:

a baffle assembly adapted to span a width of the gap between the leading and trailing portions so as to impede cross-flow through the gap, and having means for automatically adjusting the span of the baffle assembly for variations in the gap width when the leading and trailing portions pivot relative to each other.

2. The apparatus of claim 1,

wherein the baffle assembly comprises a first vertical panel adapted to be mounted to a base surface of the leading portion, and a second vertical panel adapted to be mounted to a front surface of the trailing portion facing the base surface, with said first and second vertical panels operably connected to each other at a panel-to-panel interface capable of automatically adjusting the position of said vertical panels relative to each other.

3. The apparatus of claim 2,

wherein the first and second vertical panels are adapted to be hinged to the base surface and front surface, respectively.

4. The apparatus of claim 3,

wherein the panel-to-panel interface comprises overlapping sections of said first and second vertical panels in sliding engagement with each other.

5. The apparatus of claim 3,

wherein the panel-to-panel interface comprises a central hinge capable of hinging the first and second vertical panels relative to each other.

6. The apparatus of claim 1,

wherein the baffle assembly comprises a pair of substantially parallel vertical panels each adapted to be mounted at transversely opposite open ends of the gap and to span the width of the gap between the leading and trailing portions to substantially bound and occlude the gap at the transversely opposite open ends thereof.

7. An apparatus for reducing the aerodynamic drag of a bluff body in a flowstream, the bluff body of a type having a leading portion and a trailing portion connected to the leading portion with a gap therebetween, comprising:

means securable to the bluff body for bounding at least one of two transversely opposite open ends thereof when secured to the bluff body to impede airflow into the gap through said transversely opposite open ends.

8. The apparatus of claim 7,

wherein the bounding means comprises a pair of substantially parallel vertical panels each adapted to be mounted at transversely opposite open ends of the gap and to span the width of the gap between the leading and trailing portions to substantially bound and occlude the gap at the transversely opposite open ends thereof.

9. An aerodynamic bluff-bodied vehicle comprising:

a leading portion;

a trailing portion connected to the leading portion with a gap therebetween defining a recirculation zone; and

a baffle assembly spanning a width of the gap between the leading and trailing portions to impede cross-flow through the gap, and having

means for automatically adjusting the span of the baffle assembly for variations in the gap width when the leading and trailing portions pivot relative to each other.

10. The aerodynamic bluff-bodied vehicle of claim 9,

wherein the baffle assembly comprises a first vertical panel mounted to a base surface of the leading portion, and a second vertical panel mounted to a front surface of the trailing portion facing the base surface, with said first and second vertical panels operably connected to each other at a panel-to-panel interface capable of automatically adjusting the position of said vertical panels relative to each other.

11. The aerodynamic bluff-bodied vehicle of claim 10,

wherein the first and second vertical panels are hinged to the base surface and front surface, respectively.

12. The aerodynamic bluff-bodied vehicle of claim 11,

wherein the panel-to-panel interface comprises overlapping sections of said first and second vertical panels in sliding engagement with each other.

13. The aerodynamic bluff-bodied vehicle of claim 11,

wherein the panel-to-panel interface comprises a central hinge capable of hinging the first and second vertical panels relative to each other.

14. The aerodynamic bluff-bodied vehicle of claim 9,

wherein the baffle assembly comprises a pair of substantially parallel vertical panels each mounted at transversely opposite open ends of the gap and spanning the width of the gap between the leading and trailing portions to substantially bound and occlude the gap at the transversely opposite open ends thereof.

15. The aerodynamic bluff-bodied vehicle of claim 9,

wherein the aerodynamic bluff bodied vehicle has a tractor-trailer arrangement with a tractor as the leading portion and a first trailer as the trailing portion.